

IN THE CLAIMS

Please amend the claims as follows:

1-15. (Canceled)

16. (Previously Presented) A processing apparatus, comprising:

an encoder configured to encode video and/or audio signals to generate stream files;

a processor configured to generate characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each stream, a format of the slot information within the characteristic point information corresponding to a stream type, the characteristic point information being included in a separate program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

a recording unit configured to record the stream files and corresponding program information files containing the characteristic point information separately on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium.

17. (Previously Presented) The processing apparatus according to claim 16, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

18. (Previously Presented) The processing apparatus according to claim 17, wherein said characteristic point information further includes an I-picture position of the program.

19. (Previously Presented) The processing apparatus according to claim 17, wherein said characteristic point information further includes a silent point of the program.

20-27. (Canceled)

28. (Previously Presented) A processing method, comprising the steps of:  
encoding video and audio signals to generate stream files;  
generating characteristic point information for the video or audio signals contained in each stream file, the characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each stream, a format of the slot information within the characteristic point information corresponding to a stream type, the characteristic point information being included in a separate program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

recording the stream files and corresponding program information files containing the characteristic point information separately on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium.

29. (Previously Presented) The processing method according to claim 28, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

30. (Previously Presented) The processing method according to claim 29, wherein said characteristic point information further includes an I-picture position of the program.

31. (Previously Presented) The processing method according to claim 29, wherein said characteristic point information further includes a silent point of the program.

32-39. (Canceled)

40. (Previously Presented) A computer-readable medium storing a computer program, which when executed by a computer, causes the computer to perform a processing method, comprising:

encoding video and audio signals to generate stream files;

generating characteristic point information for the video or audio signals contained in each stream file, the characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each stream, a format of the slot information within the characteristic point information corresponding to a stream type, the characteristic point information being included in a separate program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

recording the stream files and corresponding program information files containing the characteristic point information separately on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium.

41. (Previously Presented) The computer program according to claim 40, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

42. (Previously Presented) The computer program according to claim 41, wherein said characteristic point information further includes an I-picture position of the program.

43. (Previously Presented) The computer program according to claim 41, wherein said characteristic point information further includes a silent point of the program.

44-51. (Canceled)

52. (Previously Presented) A processing apparatus, comprising:

a reproducing unit configured to reproduce stream files containing video and/or audio signals and corresponding program information files separately recorded on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium;

a processor configured to generate characteristic point information from the program information file corresponding to each stream, the characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each stream, a format of the slot information within the characteristic point information corresponding to a stream type, the characteristic point information being correlated with respective positions of the characteristic point information; and

a controller configured to control reproduction of said stream files based on the characteristic point information reproduced from the corresponding program information files.

53. (Previously Presented) The processing apparatus according to claim 52, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

54. (Previously Presented) The processing apparatus according to claim 53, wherein said characteristic point information further includes an I-picture position of the program.

55. (Previously Presented) The processing apparatus according to claim 53, wherein said characteristic point information further includes a silent point of the program.

56-63. (Canceled)

64. (Previously Presented) A processing method, comprising the steps of:  
reproducing stream files containing video and/or audio signals and corresponding program information files separately recorded on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium;

generating characteristic point information from the program information file corresponding to each stream, the characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each

stream, a format of the slot information within the characteristic point information corresponding to a stream type, the characteristic point information being correlated with respective positions of the characteristic point information; and

controlling reproduction of said stream files based on the characteristic point information reproduced from the corresponding program information files.

65. (Previously Presented) The processing method according to claim 64, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

66. (Previously Presented) The processing method according to claim 65, wherein said characteristic point information further includes an I-picture position of the program.

67. (Previously Presented) The processing method according to claim 65, wherein said characteristic point information further includes a silent point of the program.

68-75. (Canceled)

76. (Previously Presented) A computer-readable medium storing a computer program, which when executed by a computer, causes the computer to perform a processing method, comprising:

reproducing stream files containing video and/or audio signals and corresponding program information files separately recorded on different areas of a recording medium, all of the stream files being recorded in a first area of the recording medium and all of the program information files being recorded in a second area of the recording medium;

generating characteristic point information from the program information file corresponding to each stream, the characteristic point information including a number of streams used by a program, identification information of each stream, attribute information of each stream corresponding to each identification information, and slot information of each stream, a format of the slot information within the characteristic point information corresponding to a stream type; and

controlling reproduction of said stream files based on the characteristic point information reproduced from the corresponding program information files.

77. (Previously Presented) The computer program according to claim 76, wherein said characteristic point information includes at least one of a start point, an end point, and a scene change point of the program.

78. (Previously Presented) The computer program according to claim 77, wherein said characteristic point information further includes an I-picture position of the program.

79. (Previously Presented) The computer program according to claim 77, wherein said characteristic point information further includes a silent point of the program.

80-87. (Canceled)

88. (New) The processing method of Claim 28, wherein a number of fields in the slot information varies according to the stream type, the stream type being one of a GOP type, an audio type, and timestamp type.

89. (New) The processing method of Claim 28, wherein the recording step comprises recording all of the program information files in a same directory.